Environmental Systems and Societies Name:

*I will test…*

* **Learning Goal:** You need to learn to create a test of your hypothesis, to see if your answer to your scientific question was correct. You will learn to organize the methodology of your test to meet the standards of scientific community.
* **Success Criteria:** You will create a test of your hypothesis. Your test will change the independent variable, control the other variables, and measure the change in the dependent variable. Your test will also include a control group for comparison with the experimental group.

**What to do:**

1. Identify your variables. You need a list which includes the independent variable, dependent variable and especially the controlled variables.
2. Create a control group.
   1. You need to determine the natural state of the independent variable, discuss how you will keep it the same.
   2. You will need to explain how you are keeping each controlled variable the same.
   3. You will need to explain how you will measure the dependent variable. You will probably need a diagram to illustrate this step.
3. Create experimental group.
   1. You will need to explain how you will change the independent variable. Be specific, be detailed. This should be done in a step by step manner.
   2. You will need to explain how you are keeping each controlled variable the same.
   3. You will need to explain how you will measure the dependent variable.
   4. You can copy and paste steps b and c.
   5. You will need an experimental group for each change you make to your independent variable.
4. Discuss Safety.
   1. Check your safety contract for safety concerns.
   2. Add safety concerns you notice.
   3. Combine and make the list on your paper.
   4. This section can be bulleted or written as a paragraph.
5. Discuss Materials and Equipment.
   1. Compose a list of materials needed (this would include things that are used up in the test like water, sugar, leaves, etc.).
   2. Compose a list of equipment needed (this would include tools that are used in the test like a thermometer, a beaker, a light source).
   3. Combine and make the list on your paper.
   4. This section can be bulleted or written as a paragraph.

**Safety:**

1. While working in the outdoor classroom, please stay out of the street.
2. While working in the outdoor classroom, be aware that bees and other insects and spiders may sting or bite if disturbed. Make sure your teacher is aware of any allergies you may have.
3. The insects, bees, plants, worms, etc. are living creatures and are to be respected. Harming these organisms results in a zero for the assignment.
4. There may be sticks or rocks that are difficult to see in with the plants, please be aware of where you step.
5. Let your teacher know immediately, if you are cut, bruised, stung, or bitten.

**What to turn in:**

1. A paragraph describing your control group.
2. A paragraph describing your experimental group.
3. A list or paragraph of safety precautions.
4. A list or paragraph of materials and equipment needed.